

**REMARKS/ARGUMENTS**

By this amendment, Claims 1 and 11 are amended and no claims are added or cancelled. Hence, Claims 1, 7-11, and 17-26 are pending in the application.

**I. SUMMARY OF THE REJECTIONS**

Claims 1, 7, 11, 17, and 21-26 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 6,401,084 issued to Ortega et al. (“*Ortega*”) in view of U.S. Patent No. 7,146,358 issued to Gravano et al. (“*Gravano*”). This rejection is respectfully traversed.

Claims 8 and 18 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over *Ortega*, *Gravano*, and further in view of “Search Term Suggestion Tool” (“*Bookface*”). This rejection is respectfully traversed.

Claims 9-10 and 19-20 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over *Ortega*, *Gravano*, and further in view of U.S. Patent No. 7,127,450 issued to Chang et al. (“*Chang*”). This rejection is respectfully traversed.

**II. THE REJECTIONS BASED ON THE CITED ART**

Claims 1, 7, 11, 17, and 21-26 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over *Ortega* in view of *Gravano*.

**A. CLAIM 1**

Claim 1 recites:

A method for generating a list of candidate alternative spellings, comprising:  
finding, among a plurality of pages, a first page that contains, in a body of the  
first page, a link that indicates a first spelling that is also contained in a

query that was entered by a user, wherein said link links to a second page;

**comparing the first spelling with the spelling of terms within said second page in order to identify spellings that are similar to, but not exactly the same as, said first spelling, wherein the spelling of the terms is in the same language as the first spelling;**

**adding, to a list of candidate alternative spellings of said first spelling, all spellings within said second page that are spelled similar to, but not exactly the same as, said first spelling;**

**generating a filtered list at least in part by filtering said list of candidate alternative spellings based on a comparison of (a) a first frequency of occurrences of said first spelling in said plurality of pages to (b) a second frequency of occurrences, in said plurality of pages, of a second spelling from said list of candidate alternative spellings; and**

wherein the steps of comparing, adding, and generating are performed by one or more computing devices. (emphasis added)

At least the above-bolded features of Claim 1 are not taught or suggested by the cited art.

1. *The cited art fails to teach or suggest “comparing the first spelling with the spelling of terms within said second page in order to identify spellings that are similar to, but not exactly the same as, said first spelling, wherein the spelling of the terms is in the same language as the first spelling”*

The Office Action asserts (on page 5) that *Gravano* discloses “searching, within said second page, for any spellings that satisfy particular criteria.” However, Claim 1 does not recite this feature. Instead, Claim 1 recites “comparing the first spelling with the spelling of terms within said second page in order to identify spellings that are similar to, but not exactly the same as, said first spelling, wherein the spelling of the terms is in the same language as the first spelling.” As noted in the Office Action, *Gravano* discloses using one or more documents

that are in a second language to identify a possible translation as a likely translation of a term in a search query. However, Claim 1 recites that the comparing of the first spelling (in a first page) with the spelling of terms within a second page is performed **to identify spellings that are similar to, but not exactly the same as, the first spelling.** *Gravano* never compares terms to identify spellings that are similar to, but not exactly the same as, a first spelling. Rather, *Gravano* computes the frequency of co-occurrences of **possible translations** of multiple query terms in a set of one or more documents.

It is conceded that some terms in one language **might be** spelled similarly to the corresponding terms in another language. For example, “bank” (English) is spelled similarly to “banco” (Spanish). However, *Gravano*’s system does **not** determine translations of terms by comparing the spellings of terms in one language with the spelling of terms in another language. Such an approach to translation would not make sense and could lead to potentially embarrassing results.

For example, if a system were to perform “translation” simply by comparing spellings, it would likely translate the English word “embarrassed” into the Spanish word “embarazada”. Such a translation would inevitably lead to awkward situations, turning “embarrassed” people into “pregnant” people. If they weren’t embarrassed enough before such a translation error, you can be sure that they would be after the translation error.

Further, according to Claim 1, the spelling of the terms in the second page is in the **same language** as the first spelling, which is in **direct contradiction** to *Gravano*’s requirement that the second document is in a second language that is different than the language of the terms in the search query.

2. *The cited art fails to teach or suggest “adding, to a list of candidate alternative spellings of said first spelling, all spellings within said second page that are spelled similar to, but not exactly the same as, said first spelling”*

The Office Action cites col. 2, lines 21-30, col. 5, lines 1-2 and 36-43, and col. 9, lines 11-12 of *Ortega* for allegedly disclosing this feature of Claim 1. This is incorrect. The Office Action appears to equate the recited second page of Claim 1 with the correlation table of *Ortega*. However, there are a number of problems with this analogy. First, clearly, *Ortega*'s correlation table is **not a page**. Second (and in a similar vein) *Ortega*'s correlation table is **not linked** to by another page. Third, *Ortega*'s correlation table is generated based on previous multiple term queries. One or more spellings within a page are **not** added to *Ortega*'s correlation table, as Claim 1 would require.

Perhaps the Office Action intended to equate the recited second page of Claim 1 with *Ortega*'s list of candidate replacement terms (CRTs). However, this analogy suffers from similar deficiencies with respect to *Ortega*'s correlation table. First, clearly, *Ortega*'s list of CRTs is **not a page**. Second (and in a similar vein) *Ortega*'s list of CRTs is **not linked** to by another page. Third, *Ortega*'s list of CRTs is generated based on examining one or more correlation tables. One or more spellings within a page are **not** added to *Ortega*'s list of CRTs, as Claim 1 would require.

3. *The cited art fails to teach or suggest “generating a filtered list at least in part by filtering said list of candidate alternative spellings based on a comparison of (a) a first frequency of occurrences of said first spelling in said plurality of pages to (b) a second frequency of occurrences, in said plurality of pages, of a second spelling from said list of candidate alternative spellings”*

The Office Action cites: (1) col. 2, lines 8-11, (2) col. 3, lines 38-41, (3) col. 6, lines 47-50, (4) col. 8, lines 41-42, (5) col. 9, lines 17-23, (6) col. 9, line 64 to col. 10, line 5, and (7) col.

11, lines 32-33 of *Ortega* for allegedly disclosing this feature of Claim 1. This is incorrect.

These cited portions merely disclose:

- (1) that a table comprises a keyword and related terms list that is composed of terms that have appeared in combination with the keyword with the highest degree of frequency;
- (2) using correlation data (or table) to find terms that are related to a correctly spelled query term and that have a similar spelling to a misspelled query term;
- (3) that a particular term is filtered out of a related terms list if the prefix (which indicates a search field, such as title, author, subject) of the particular term does not correspond to a prefix of a non-matching (or misspelled) term;
- (4) that a query server determines whether a query includes both matching and non-matching terms if processing the original query did not yield any results (“the number of items found is zero”) from a bibliographic database (probably due to a misspelled term);
- (5) a comparison is made between a non-matching query term and a term in a related terms list of a correlation table to generate a similarity score;
- (6) the similarity scores are evaluated to determine whether any of the related terms are sufficiently similar to a non-matching term; and
- (7) a correlation table is generated by analyzing a log file of query submissions to identify original queries (i.e., without any query term deletions or replacements) that resulted in, for each original query, at least one item (“ITEMS\_FOUND>0”) that exactly matched the original query.

Specifically, the Office Action used (4) for allegedly disclosing the recited first frequency of occurrences and (7) for allegedly disclosing the recited second frequency of occurrences. Even if this were true, *Ortega* still fails to teach or suggest that such frequencies are **compared**. In fact, it does **not** make sense to compare ITEMS\_FOUND=0 with ITEMS\_FOUND>0. No such comparison is ever made.

Further, it appears that the Office Action equates (a) the recited list of candidate alternative spellings of Claim 1 with the correlation table of *Ortega* and (b) the recited filtered list of Claim 1 with the “related terms” list of *Ortega*. However, according to *Ortega*, the related terms list of *Ortega* is **the same as** the correlation table minus the matching term. Because the related terms list of *Ortega* is not a filtered list of the correlation table of *Ortega* (as Claim 1 would require), this set of analogies cannot be made.

Perhaps the Office Action intended to equate (a) the recited list of candidate alternative spellings of Claim 1 with the correlation table of *Ortega* and (b) the recited filtered list of Claim 1 with the list of CRTs of *Ortega*. However, the list of CRTs is generated based on how similar a non-matching term is to a term in the related terms list of the correlation table. The list of CRTs is **not** generated based on a comparison of (i) the frequency of occurrences of a non-matching term in a plurality of pages to (ii) the frequency of occurrences of a related term in the plurality of pages, as Claim 1 would require.

Based on the foregoing, *Ortega* and *Gravano* fail to teach or suggest all the features of Claim 1. Therefore, Claim 1 is patentable over *Ortega* and *Gravano*. Reconsideration and withdrawal of the rejection of Claim 1 under 35 U.S.C. § 103(a) is therefore respectfully requested.

## B. CLAIM 11

Claim 11 recites the same features of Claim 1 discussed above that render Claim 1 patentable over *Ortega* and *Gravano*. Therefore, Claim 11 is patentable over *Ortega* and *Gravano* for at least the same reasons given above for Claim 1.

C. DEPENDENT CLAIMS

The remaining claims are dependent claims that depend (directly or indirectly) on one of the claims discussed above. Therefore, the remaining claims are patentable over the cited art for at least the same reasons given above for the claim upon which it depends.

**III. CONCLUSION**

For the reasons set forth above, it is respectfully submitted that all of the pending claims are now in condition for allowance. Therefore, the issuance of a formal Notice of Allowance is believed next in order, and that action is most earnestly solicited.

The Examiner is respectfully requested to contact the undersigned by telephone if it is believed that such contact would further the examination of the present application.

Please charge any shortages or credit any overages to Deposit Account No. 50-1302.

Respectfully submitted,

HICKMAN PALERMO TRUONG & BECKER LLP

/DanielDLedesma#57181/

Daniel D. Ledesma  
Reg. No. 57,181

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2055 Gateway Place, Suite 550

San Jose, CA 95110-1083

Telephone: (408) 414-1080 ext. 229

Facsimile: (408) 414-1076